GRADUATE JOURNAL

A Review of Current Graduate and Research Activities

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GRADUATE JOURNAL

A Review of Current Graduate and Research Activities

VOLUME V DECEMBER 1956 NUMBER 4

Secondary Vocational Training in the USSR

GEORGE K. LEWIS*

This article is based on information submitted to the Boston University GRADUATE JOURNAL *by Vladimir Krylov, Assistant Head of the Administration of Specialized Secondary Schools under the Ministry of Higher Education of the USSR. Submission of this material was made in response to a request directed to the Soviet Information Bureau, Moscow, through the Soviet Embassy, Washington, D. C., by the Editor of the* GRADUATE JOURNAL.

Vocational training at the secondary level is rapidly increasing in importance in the overall Soviet educational system. We have, perhaps, in this country focused our attention too much on the progress of Soviet colleges and universities, especially in their role of preparing scientists and engineers. But the cultural and economic framework of the Soviet Union and its agricultural and industrial base are manned by far more technicians and other vocational school graduates than it is by college-trained specialists.

The development of the so-called "trade" high schools in the United States came about over the past century as a result of several stimuli, including the demand for trained technicians by manufacturers and other industrial activities, plus the realization that there were many young people in high school who lacked either the ability or the means to go on to college and therefore stood to gain little from a "college course."

In recent years, the differences between the "college," the "commercial," and the "shop course" curricula in United States high schools have grown less distinct, particularly as the trade schools have lost some of their reputation as the "black sheep" of the secondary schools. Our society has come to place more and more of a premium upon general education even at the high school level. Therefore, students in the "shop course" at a school like Boston Technical High will take courses in English, mathematics, or chemistry, given, for the

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most part, by the same instructors that handle the "college course" group.

Developments of vocational training in the Soviet Union, Mr. Krylov points out, have come almost entirely since the early 1920's. One of the key elements in the growth pattern of the Soviet Union as a world power has been rapid industrialization. The attempt by the Soviets to bring about in a few decades what it took Great Britain, The United States, and the other industrial powers over a century to accomplish has resulted in an enormous demand for technicians of all types.

Prior to 1920 there were about 450 vocational secondary schools in the Soviet Union, with an enrollment of 54,000 students. Today there are 3,757 such schools attended by about two million students in 348 specialties. In some areas the growth of vocational training has been even greater. In the Kazakh SSR there are now about 67,000 specialized secondary school students compared to a pre-1920 total of 300. Prior to the Revolution there was no such training in Kirgiz, Turkmen, and Tadzhik SSR's — while some 40,000 students are acquiring specialized training there now. The total number of workers in the Soviet Union who have had secondary vocational training now exceeds 3,200,000, which is more than twice the number in 1941, and sixty times the number in pre-Revolutionary Russia.

The vocational secondary schools accept students directly from the seven-year[1] course (comparable to the United States "elementary" grades). In this case the training period lasts for four years. Some students, however, do not enter until they have completed the ten-year program. In this case, the training period is shortened to two or three years.

Vocational schools are open to all, and admission is by examination. When a choice must be made between students of equal qualifications, preference is given to those who have had experience in farming or in industrial work.

These schools are tuition-free, and state stipends are given to a majority of the students. When necessary, dormitories are provided, or as the Soviets prefer to call them, "hostels." Instruction is given in the native language.

In spite of the vigor with which the development of secondary vocational training is being undertaken, there are still serious shortcomings in the program. Many schools do not have proper facilities for classroom or shop use, others are not situated near the types of industry for which they are preparing technicians, and in some schools a satisfactory programming of practical factory or farm experience has not, as yet, been worked out. Perhaps most serious of all is the inability of these schools to keep up with the nation's demands for trained personnel. This lack is particularly keen in the eastern areas

[1]See the first article in this series, November, 1956 issue of the GRADUATE JOURNAL.

of the Soviet Union, the region described in the previous article on Soviet higher education.

The sixth Five-Year Plan (1956-1960) calls for an increase in vocational graduates of fifty per cent over the fifth Five-Year Plan. During this latter period, the average annual number of vocational school graduates was about 310,000. There are nearly one-half million students enrolled in 1956. The emphasis in skills will be in the fields of heavy industry, construction, transportation, and agriculture. Now vocational school construction will be concentrated in the trans-Urals, the Central Asian republics, and in the Far East.

Like Mr. Yelyutin, whose interview formed the basis for the previous article, Mr. Krylov refers to the associated secondary vocational training available through evening courses and correspondence schools. Such courses have enjoyed their most rapid growth in the period since World War II. In the first issue of the new Soviet illustrated magazine, *USSR*, there is a short article about a recently demobilized sailor from Leningrad. After returning home and finding work in a local factory, the young man enrolls in the evening department of the Polytechnical Institute.

Such training is available not only at the regular vocational schools but also at the factories themselves or on the large state farms. Nearly one-half million factory and office workers and collective farmers are attending secondary vocational training courses in the evening or through correspondence. Correspondence course enrollments have increased ten-fold since 1940. The sixth Five-Year Plan includes strengthening and enlargement of this system of technical training during leisure time.

In connection with secondary school development in the USSR, it is worthwhile noting a radical change in the elementary school program of East Germany, announced in a dispatch to the *New York Times*, November 23, 1956. Under this plan, the traditional eight-year elementary school is to be scrapped and replaced by a ten-year polytechnic school system. By 1965, all East German children will be attending these new schools, which are designed to prepare "children for their future place at the work bench, on the mechanized farm, and in the industrial laboratory." One might easily speculate that this new East German plan may be modeled after similar programs in the Soviet Union. East Germany found itself in very short supply on technically trained workers when it was separated from the much more heavily industrialized and mechanized West Germany. It is disquieting to note the quotation ascribed to a "leading East German educator" that this new polytechnic training will eliminate "the present excessive intellectual training in form of a greater emphasis on natural sciences and practical work at school work benches, in school gardens, in industrial enterprises, agriculture, and the crafts." It would appear that technical training in the Soviet Union and the satellites, with its de-emphasis on the social sciences and humanities, was headed in precisely the opposite direction from that in this country.

In the United States, talented young people in vocational high schools have found it almost impossible to go on into college, if such a course later appears desirable or possible. Usually, however, this is a result of a deficiency in foreign languages, rather than in other basic subjects. In the Soviet Union (and East Germany) young people can move right on into vocational secondary schools and other higher technical training institutes and colleges without worry, since the goal of these systems is trained technicians, not necessarily "educated men" as the term is used in the liberal arts tradition.

There is, however, an additional aspect of this vastly stepped-up technical training program in the Soviet Union. Premier Bulganin refers to his cadre of technical experts as his "gold reserve," not only for domestic investment, but also for foreign export. Last year the Soviet Union initiated an active campaign of cultural and economic penetration of the South Asian and Middle Eastern nations. Burma was promised a complete technologic institute in Rangoon as a gift from the Soviet people. Soviet technicians have moved into India, Afghanistan, and Egypt. Secretary of State Dulles was reported recently as "more worried about the export of Russian scientists and engineers in the next ten years than he is about the export of Russian arms or consumer goods." One of the most formidable obstacles to the enlargement of the United States technical assistance program has been the lack of personnel who have the technical abilities as well as the personality and good common sense that is required for successful Point Four administration.

Mr. Krylov's remarks concerning the development of secondary vocational training in the Soviet Union should serve as notice that the Soviet educational system at all levels is being molded to produce enough technicians and specialists to man the machine shops, laboratories, and farms over the crucial decades to come, not only at home, but in the expanding spheres of Soviet influence.

Announcement

In order to facilitate expansion and technical operations an Editorial Board has been established for the GRADUATE JOURNAL, through the cooperation of Dean Duncan Macdonald, Graduate School, and the Editor of the JOURNAL.

Board Members appointed for the year of 1956-57 are: Malcolm E. Agnew, Professor of Classical Languages, College of Liberal Arts; John F. Leisher, Assistant Professor of English, College of Liberal Arts; and George K. Lewis, Assistant Professor of Geography, College of Liberal Arts.

Boston University Book Reviewed

Inside the Atom. By ISAAC ASIMOV*, New York: Abelard-Schuman, 1956, 176 pp. $2.75.

Reviewed by SIDNEY ROSEN**

The vulgarization of science is an art which flourished during the eighteenth century. It was the fashion then to publish books for the layman entitled *Newton for Ladies*, *Newton for Doctors*, or, in fact, Newton for anybody and everybody. In these volumes, the concepts contained in the difficult *Principia* were translated into what was usually rather flowery but understandable language.

Some aspects of physical science have changed since that time. Specialization, which has reached a point where a field-theory man cannot communicate with a biochemist, makes the task of explaining science to the layman an exceedingly difficult one. This difficulty of communicating to the public ideas which have been originally framed in mathematical symbols or in technological semantics is certainly responsible in part for the popular conception of the scientist as a madman or a magician. Therefore, any attempt on the part of scientists to inform the public about what science is all about is laudable. This is especially true when the book written for the layman is aimed at the high-school student, the teen-ager who will soon grow to be the citizen living in a world whose comforts and whose terrors are largely the results of scientific research.

There are possibly two ways to write about physical science for the layman. The first is simply to pack a book with facts, like a squirrel's storehouse in autumn. The second, is to attempt to discuss science as an area of human creativity, to treat the scientist as an interpreter of natural events. The author has chosen the former method for this book. In my opinion, this is an unfortunate choice. Most of the textbooks used in secondary school physics and chemistry courses deal with science in this way, as do those books written to "interest" the teen-ager in science. What the author has attempted to do he has done well; one would not expect less of a gifted writer like Dr. Asimov.

It saddens me, however, that he has not turned his talents toward an explanation of the nature of physical reality for the high-school age group. Such a work is sorely needed. Furthermore, it presents a far greater challenge to the scientific writer than the mere coalescing of factual material. The major fault of presenting scientific concepts as though they were realities is that, too often, the model becomes the real thing for the layman. Protons, neutrons, and electrons are really little hard balls bouncing about. The "reality" of the scientist is not distinguishable from the "reality" of the layman. How disillusioning for a layman to discover that in the laboratory an alpha particle "exists" only as a very ephemeral fuzzy line in a gob of mist, as a click issuing from a loudspeaker, as a scintillation of light in a dark chamber, or as the turning of a counter in the midst of a complex of vacuum tubes and wires!

Dr. Asimov writes in a compelling way. However, one gets the feeling that this book was a "rush" job. It seems cruel to pass over the Bohr

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model of the atom in these few lines (p. 70):

"The less energetic forms of this group of radiations are produced by certain types of vibrations of atoms and molecules. The more energetic forms are produced by movements of electrons within the atoms. The closer the particular electrons are to the atomic nucleus, the larger the quanta produced by their movements. Movements of the outermost electrons of an atom produce the different types of visible light. Movements of electrons further produce ultraviolet light. Movements of the innermost electrons produce x-rays."

Occasionally, the information conveyed in the book is not altogether clear. For example, in explaining the concept of mass number (p. 123): "An oxygen-16 nucleus contains 8 protons and 8 neutrons, or 16 subatomic particles altogether. The average mass number of the protons and neutrons in the oxygen-16 nucleus is, therefore, exactly 1." (Is the teen-age reader to assume that this result is obtained from $8/8 = 1$?) After pointing out that protons and neutrons differ in mass by an amount equal to 0.0009, the paragraph continues: "In carbon-12, with 6 protons and 6 neutrons in the nucleus, the average mass number of those particles is 1.0003. In oxygen-16 it is exactly 1, as we have said." (But, cries the reader, 6/6 is 1, too!) In all fairness, the author then explains what has happened to decrease or increase the mass number of an element. However, he fails to point out at first that he has been talking about the comparison of a theoretical mass number with the actual measurement of the number.

Again, a quotation from page 84. What could the following words mean to a teen-ager? "The alpha particle consists of two protons and two neutrons. When the uranium-238 nucleus has lost an alpha particle, it has lost two protons. Its atomic number is therefore decreased by 2 and is now 90. Atoms with number 90 are thorium. Furthermore, the uranium-238 nucleus lost two neutrons also. Its mass number is therefore reduced by 4 and is now 234.

"We see, then, that when a uranium-238 nucleus throws off an alpha particle, it becomes a nucleus of thorium-234.

"Don't confuse thorium-234 and thorium-232..."

Nevertheless, this book represents a creditable attempt to get the teen-ager interested in the exciting area of atomic energy. In his lively style, the author does point out the importance and the dangers implied in the rapidly accumulating knowledge in this field. What illustrations and diagrams are in the book are good; there could have been more. Congratulations are due the author for providing an excellent subject-matter index at the end of the book.

Inside the Atom follows the genealogy of a line of books on atomic energy for the layman stemming from the well-known *Explaining the Atom*, by Selig Hecht (Viking, 1947). While Hecht's book was written more from a historical point of view and with an assumption, perhaps, of a more sophisticated reader, one would wish that Dr. Asimov's book had a similar easy and flowing style. *Inside the Atom* contains so much in so few pages that the reader is left with a breathless feeling, as though he had just run the mile in 4 minutes flat. Yet the book will give the teen-ager a glimpse into the strange and fascinating sub-atomic world — an experience no one of high-school age should miss.

International Genetics Symposia

Tokyo and Kyoto, September 6-12, 1956

WILLIAM C. BOYD*

Japanese geneticists, working with the Science Council of Japan, organized the International Genetics Symposia for 1956, and invited a number of foreign scientists, including the present writer, to attend and present communications. Many scholars, at least in this country, felt that the expense involved made this impossible, and regretfully declined. However, almost at the last minute, the National Science Foundation and the Office of Naval Research decided to send 40 American geneticists to the Symposia, and invitations were circulated by telegram and telephone. I was one of those fortunate enough to be included. The NSF paid for the round-trip air "tourist" transportation to Tokyo and return. Additional expenses incurred while within Japan had to be defrayed in other ways. Altogether some 100 delegates attended from outside Japan. I do not know the number of Japanese who attended, but it was certainly many times this number.

I arrived in Tokyo in the early afternoon of September 4. After a trip of some 7,000 miles, I was ready to spend the afternoon resting, but Professor Furuhata, Dean of the Tokyo Medical and Dental College, had thoughtfully sent his son-in-law, Dr. Ito, to meet me at the plane, so I was whisked off to the symposium on Twin Research, where papers were presented in French, German, and English.

The principal meetings began on September 6, and were admirably organized. Busses were provided to take the delegates from their hotels to the meeting hall, and back again in the afternoon. Every attempt was made by our Japanese hosts to make possible our attendance at the meetings with a minimum of inconvenience.

The language of the principal meetings was English, which of course all of the delegates could read, and many spoke beautifully. Even many of those with no practice in speaking English struggled grimly. Others, feeling that the difficulties of scientific communication are sufficiently great without the additional barrier of a foreign accent, asked to have their communications read by someone whose command of the spoken language was better than their own. Professor Haldane of London University read Dr. Tessier's communication, and I performed the same office for Dr. Turpin. As I emerged from the meeting hall, one of the French delegates greeted me with the statement that I had "défendu l'honneur de la France!" Those of us from the United States, of course, had no linguistic problems at the meetings, however helpless we might feel on the streets of Tokyo. My own paper was very

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kindly received, and I was very happy to represent Boston University at this interesting international conference.

In addition to the meetings, our hosts arranged a multitude of scientific exhibits and cultural events, among which I vividly remember a visit to the Kabuki theater. There was also an excursion to Nikko, a place of wonderful natural beauty with pagodas and mausoleums decorated in fabulous color. Professors are greatly respected in Japan, and we were given receptions by the President of the University of Tokyo, the President of the Science Council of Japan, the Director of the International Cooperation Bureau, the Minister of Education, the Mayor of Misima, and the President of Kyoto University.

The closing meetings were in Kyoto, for over a thousand years the capital of Japan, and all during the Middle Ages the largest city in the world. It is in many ways a more interesting city than Tokyo. On the way to Kyoto we visited the Government Institute of Genetics at Misima, and were able, among other things, to sample the seedless watermelons developed by Dr. Kihara, the director.

After the close of the scientific sessions most delegates remained in Japan for a few days to see some of the important scientific, cultural, and commercial centers. The necessary travel was arranged with great efficiency by the Japan Travel Bureau. I remember particularly visits to Nara, often described as the cradle of Japanese civilization, and to the Horyuji temples.

After leaving Japan I was able, by invitation of the commanding officer, to visit the U. S. Navy Medical Research Unit in Taipei, Taiwan (Formosa), and to inspect the fine medical work the U. S. Navy is beginning to carry out there.

My visit was highly profitable scientifically, both on account of new facts I learned and the new friendships I made, but in addition, for the first time I began to feel that I understood to some extent the way the Japanese people feel about things and the ways in which this feeling differs from our own. These sentiments of friendship and understanding among peoples may even be the most valuable by-products of international scientific meetings and might go far towards justifying the fatigue and expense involved.

Record of Research—XXVII

The following list of books and articles published recently by members of the University staff or by students was compiled from information made available in the offices of the President of the University and of the Dean of the Graduate School.

Education

EAMES, THOMAS H. "A Visual-Ocular Screening Test," *The Physical Educator*, Vol. XIII, October, 1956, pp. 101-3.

Geography

COHEN, SAUL B. "Team Research in Marketing Geography," *The Professional Geographer*, Vol. VIII, No. 5, September, 1956.

ERICKSON, FRANKLIN C. & GEORGE K. LEWIS. "A Call List of Aerial Photographs for Geography Courses," *The Professional Geographer*, Vol. VIII, No. 3, May, 1956.

History

MOODY, ROBERT E. "A Re-examination of the Antecedents of the Massachusetts Bay Company's Charter of 1629," Massachusetts Historical Society *Proceedings*, 69: 56-80.

Human Relations

FEINGOLD, S. NORMAN. "An Adult Cerebral Palsy Educational and Vocational Workshop," *Cerebral Palsy Review*, Vol. 17, No. 3, May-June, 1956, pp. 64-8.

Political Economics

BLACKWOOD, GEORGE D. "The Sit-Down Strike in the Thirties," *The South Atlantic Quarterly*, Vol. IV, No. 4, October, 1956.

Theology

ROWLINGSON, DONALD T. *Introduction to New Testament Study*. New York: The Macmillan Co., 1956, 246 pp. $3.95.

———. *Reader's Guide for the Letter of Paul to the Galatians*. Nashville, Tennessee: Board of Education of the Methodist Church, Department of Christian Education of Adults. 1956.

Boston University Films

The following is a list of motion picture films which have been produced by the Department of Biology, Boston University, and are presently available for distribution. A listing of pertinent references of articles pertaining to each film that have been published is also included. A brochure containing an analysis of all available films is in the process of being prepared; analyses are currently available on several films at this time.

"The Control of Small Blood Vessels," FULTON, G. P., and B. R. LUTZ, 1941. *Anat. Rec. 78:* 69, 1940; *Science 92:* 223-224, 1940; *Anat. Rec. 79:* 23, 1941; *Anat. Rec. 81:* 143, 1941; *Am. J. Physiol. 133:* 284, 1941; *Am. J. Physiol. 135:* 531-534, 1941; *Fed. Proc. 1:* 52, 1942; *Anat. Rec. 120:* 293-308, 1954.

"White Thromboembolism in the Minute Cheek Pouch Vessels of the Hamster," LUTZ, B. R., G. P. FULTON, and R. P. AKERS, 1951. *Anat. Rec. 96:* 537, 1946; *Anat. Rec. 96:* 554, 1947; *Science 105:* 361, 1947; *Fed. Proc. 9:* 46, 1950; *Fed. Proc. 9:* 81, 1950; *Exp. Med. & Surg. 8:* 258-287, 1950; *Anat. Rec. 108:* 544, 1950; *Circulation 3:* 339-351, 1951; *Anat. Rec. 109:* 152, 1951; *Blood 10:* 831-840, 1955.

"Tumor Transplantation in the Hamster Cheek Pouch," LUTZ, B. R., G. P. FULTON, D. I. PATT, and A. H. HANDLER, 1951. *Cancer Res. 10:* 231-232, 1950; *Anat. Rec. 108:* 545, 1950; *Cancer Res. 11:* 64-68, 1951; *Science 115:* 461-465, 1952; *J. Lab. & Clin. Med. 44:* 145-148, 1954.

"White Thromboembolism and Vascular Fragility in the Hamster Cheek Pouch After Anticoagulants," AKERS, R. P., G. P. FULTON, and B. R. LUTZ, 1951. *Amer. J. Physiol. 167:* 764, 1951; *Blood 8:* 140-152, 1953; *Blood 10:* 831-840, 1955.

"Effects of Beta and X-irradiation on the Circulation in the Hamster Cheek Pouch," FULTON, G. P., B. R. LUTZ, D. L. JOFTES, and F. W. MAYNARD, 1952. *Fed. Proc. 11:* 52, 1952; *Anat. Rec. 115:* 446-447, 1953; *Blood 9:* 622-631, 1954; *Proc. Soc. Exp. Biol. & Med. 84:* 259-260, 1953; *Circ. Res.* In press.

"Vascular Effects in the Hamster Cheek Pouch of Adrenal Insufficiency and Experimental Hypercorticalism," WYMAN, L. C., G. P. FULTON, and M. H. SHULMAN, 1952. *Annals N. Y. Acad. Science 56:* art. 4, 643-658, 1953; *Anat. Rec. 115:* 449-450, 1953; *Fed. Proc. 12:* 161, 1953; *J. Allergy 25:* 28-32, 1954; *Am. J. Physiol. 176:* 335-340, 1954.

"Vascular Changes in the Cheek Pouch of the Hamster During Infection with Trichinella Larvae," HUMES, A. G., and R. P. AKERS, 1952. *Anat. Rec. 114:* 103-114, 1952.

"Post-irradiation Petechiae and the Mechanism of Formation with Snake Venom," FULTON, G. P., M. H. SHULMAN, B. R. LUTZ, and K. A. ARENDT, 1953. *Anat. Rec. 117:* 595-596, 1953; *Fed. Proc. 12:* 92, 1953; *A.A.A.S. Symposium on Animal Venoms.* In press.

"Living Microscopic Blood Vessels: Normal and Pathological Conditions," LUTZ, B. R. and G. P. FULTON, 1954. *Anat. Rec. 120:* 293-308, 1954; *J. Lab. & Clin. Med. 44:* 145-148, 1954.

"Hematological Studies in Living Blood Vessels of Hamster Cheek Pouch," FULTON, G. P., B. R. LUTZ, R. G. DESAI, and H. J. BERMAN, 1954. *Fed. Proc. 13:* 12-13, 1954; *Blood 9:* 622-631, 1954.

"Platelet Agglutination and Petechial Formation," FULTON, G. P., B. R. LUTZ, H. J. BERMAN, and K. A. ARENDT, 1954. *Fed. Proc. 14:* 52-53, 1955.

"Platelets in the Peripheral Circulation," BERMAN, H. J., G. P. FULTON, and B. R. LUTZ, 1955. *Proceedings* of Conference on Platelets, Nat. Res. Council Report, *Fed. Proc.* In press.

"Blood Flow in Small Vessels," LUTZ, B. R., G. P. FULTON, and K. A. ARENDT, 1956. *Proceedings* of Third Microcirculatory Conference. In press.

Announcement

Dr. George P. Fulton, Chairman, Department of Biology, College of Liberal Arts, was invited to visit and lecture at the Stanford University School of Medicine, San Francisco, California, on October 28 to November 4, 1956. The following lectures were presented:

October 29: Stanford University School of Medicine, Palo Alto Campus; topic, "Regulation of Blood Flow in the Microcirculation."

October 30: Stanford University School of Medicine, Lane Hospital, San Francisco; topic, "Vascular Fragility."

In addition, Dr. Fulton participated, by invitation, in a series of discussions pertaining to research on skin and its blood supply, and on problems relating to radiation dosimetry.

Stratford and Attingham

Poetry and Music in Two English University Summer Schools

PAUL ELLISON*

There was a time when the American visiting England during the summer was offered little more than what Ronald Bottrall called "a snippet of culture in an easy grotto." Nowadays the American visitor is a welcome and familiar member in English university summer courses; in fact, courses are often designed especially with him in mind. The courses offered by the University of Birmingham are very popular, especially since some of them include lectures by well-known American guest-professors; but also, perhaps, because Birmingham offers its students such beautiful surroundings. I have had the pleasure of being associated, as lecturer and poetry-reader, with three courses of the Birmingham Music Summer School: two at Attingham Park, Shropshire, in 1955 and 1956, and one at Stratford-upon-Avon in 1956.

Most of the Stratford courses are held at Mason Croft, which is near the Guild Chapel and King Edward VI Grammar School, and away from the noisier parts of town. It is an old house, renovated in the eighteenth century, and formerly belonging to Marie Corelli. In the garden is the gazebo in which that deluded but colorful fantastic concocted her bulky mystico-erotic romances, but the gondola in which she used to affront the swans of Avon has gone. Fortunately, her influence has departed too: there is nothing arty or eccentric about the culture offered present-day visitors to Mason Croft. The atmosphere is pleasantly informal. Students do not keep strictly to their own courses, but wander about at will. Almost all of them seem to attend the music summer school courses, which is not surprising, since the organizer and director is a most unusual person.

It is scarcely a digression to introduce Mr. Wilfred Mellers, for he is the very spirit of the Birmingham Music Summer School: he has fostered and developed it and brought it to the level of success and popularity it now enjoys. W. H. Mellers is, of course, known over here for his illuminating and provocative essays in *Scrutiny* and other journals, English and American, as well as for his *Music and Society* and his definitive critical biography of François Couperin. He is also a celebrated and highly original composer, and although his works are not well-known here, so far as I know, they often appear on the B.B.C. Third Program; and one of his operas, based on the life of Christopher Marlowe, was recently performed at Festival Hall in London. Last summer he was composing a new opera, commissioned for London

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performance. The libretto deals with the intrigues of the Teddy Boys — delinquents and near-criminals whose name derives from their affecting Edwardian dress and who currently present a growing social problem in Britain. In terms of searching, austere, and lovely but utterly unsentimental melodic lines, in sudden modulations and astonishing dissonances, he seemed to me to examine and express perfectly the pathos, waste, and ugliness of their lives. The musty truism about teachers is certainly given the lie in Wilfred Mellers: in him his students meet a critic-performer-artist who is also an inspired teacher. His courses combine excellent organization and healthy informality.

The Stratford course I mentioned previously covered sixteenth- and seventeenth-century music and poetry. It was given in the evening, and I read and interpreted the poetry. The program opened with the famous lines on music from the *Merchant of Venice*, which most of the students had already seen in Margaret Webster's production at the Festival Theatre. Richard Barnfield's "In Praise of Music and Poetry" followed, presenting music and poetry as complementary, as the course intended:

> If music and sweet poetry agree,
> As they must needs, the sister and the brother. . . .

Then came that lovely simple poem of Richard Edwardes, "In Going to My Naked Bed," in which the poet is inspired by the song of a housewife singing to her child. This was followed by a group of "lute" poems: Sir Thomas Wyatt's "Blame Not My Lute," "My Lute Awake," and Shakespeare's "Orpheus with his Lute." A group of lute solos and songs accompanied by the lute then introduced the instrument itself, which many of the students had never heard or seen. The possibilities and the difficulties of the lute were explained and illustrated, and especially how they influenced the poet writing for it. The performers and the class discussed the influence of music upon sixteenth-century poetry, and vice-versa, and further illustration took the form of a number of "fountain" poems and songs — this time accompanied by Mr. Mellers on the virginal — such as Ben Jonson's famous poem "Slow, Slow, Fresh Fount" and John Dowland's song, "Flow Not So Fast, Sad Fountains." The next section of songs and music illustrated what Ralegh called "the music of division," complemented at the same time by its concomitant — Metaphysical poetry. The music of Henry Lawes aptly demonstrated what his friend John Milton meant when he wrote of the "wanton heed and giddy cunning" with which the voice untwisted "all the chains that tie the hidden soul of harmony."

Finally, the change in English music and poetry after the Restoration was represented by the music of Henry Purcell and readings from Dryden's *Secular Masque*. The discussion that followed this section of the course made me realize how profitable it had been. The students had received an insight not only into the music and poetry of a great period, but also into the close relationship which must exist between artists within a period, though they employ different media, and

which makes the artists mutually explanatory. And, most valuable of all, they had glimpsed into an age in which music and poetry were more a part of national life and culture than they are today. It gave me great pleasure that almost all the audience were Americans.

There were relatively few Americans at Attingham Park, perhaps because Attingham is off the beaten track and because the course involves two-weeks residence at Attingham Park itself. However, as always in such cases, the close contact between students, teachers, and performers is one of the most valuable parts of the course. Here Mr. Mellers excels. Somehow he manages to be everywhere at once: getting to know every student personally, discovering his talents, encouraging him to contribute to programs, drawing him out, and giving him confidence. Under his influence delightful non-curricular activities are likely to spring up. I remember especially an after-hours madrigal concert in the Zodiac Room (a circular basement room acoustically perfect, its walls painted by former students with all the signs of the Zodiac). Somebody came across an old carton full of madrigal parts, and soon everybody was joining in "The Silver Swan" and "Now Is the Month of Maying."

There is little chance of boredom. Not only do the students work hard; the lectures and concerts are stimulating, and the lecturers and performers are generally well-known professionals of good standing, as able to enthrall their audiences as to instruct them. Lectures and rehearsals occupy the days and concerts the evenings. Many of the students themselves are teachers or professional artists, and almost everybody takes part in the concerts at some time during the two-weeks course — all of which creates a spirit of interest, so that students, teachers, and performers constitute an integrated group.

In 1955 the work of the school was centered around the music of J. S. Bach. The course conceived Bach as a retrospective musician, looking back in philosophical approach, and even in technique, as far as the Middle Ages and, in other aspects, forward to the present century. The lectures and concerts therefore considered not only Bach himself, but also music by his contemporaries and immediate successors, and religious music ranging from the fourteenth to the twentieth century. Much of the music was choral, the principal works being Bach's motet, *Jesu Meine Freunde*, and the Cantata No. 106 (*Actus Tragicus*); Handel's *Jephtha;* and Edward Rubbra's *Tenebrae*. The composer of the latter work was himself one of the lecturers. As for the performers, Alfred Deller was perhaps the best known. He has an astonishing counter-tenor voice and recently concluded an American tour, including a concert at Sanders Theatre in Cambridge.

I took part as poetry reader and commentator in two concerts in this particular school. The first was devoted to pre-Bach music and literature. The concert began, much in the style of Stratford, with Chaucer's invocation to the Virgin that forms the prologue of his Prioresse's Tale. A Mass by Chaucer's contemporary poet and composer, Guillaume de Machaut, followed, and works by Dufay and

Dunstable. Then came readings from and commentaries on Henryson, Dunbar, and Skelton; the reading of the latter's "Woefully Arrayed" immediately preceded a performance of the beautiful setting of it that was written by Thomas Cornysshe, musician to Henry VIII.

On the second occasion the readings complemented a program of music by Handel and other eighteenth-century composers. Selections from Swift and Gibbon were read, and Pope's *Satire on Women* and the whole of Christopher Smart's *A Song to David.*

I was able to take part in only one concert lecture this year. The course was centered around modern music — particularly the music of Schönberg and Webern. Its relation to sixteenth- and seventeenth-century music brought part of the program close to what we had previously done at Stratford, but with two additions. The program opened with Dylan Thomas' poem, "Do Not Go Gentle Into That Goodnight," followed by Stravinsky's setting of it. (I was surprised to find that the Stravinsky music comes close to being a lament, whereas the poem is anguished but forceful and defiant.) Then after the sixteenth- and seventeenth-century selections, the final part of the program was a reading of Wallace Stevens' "The Man With The Blue Guitar." We intended to perform it with original guitar accompaniment, but the guitarist sprained his wrist just before the concert. However, the composer was present, and he played the music on the harpsichord. The composer, Mr. Humphrey Searle, has been in charge of the B.B.C. Third Program music for about ten years, and this music had originally been composed for a B.B.C. memorial program for Wallace Stevens. In spite of his heavy commitments in the course, Mr. Searle made nothing of transposing the music to the harpsichord or of the extra rehearsals involved. The poem is difficult; broadly speaking, it examines, as does so much of Stevens' work, the relation of the creative artist and his work to the world of reality.

As I left Attingham for my home town of Warwick, I asked myself of what use occasions such as these really are, and then found myself surprised that I should think any defence necessary. I thought of the continuity of tradition and national life and culture and decided that any evaluation would have to include them. But I felt that actually the greatest value lay in the fact that a few teachers and performers and students had gathered to study and understand and perform works whose very excellence precluded anything slipshod or halfhearted on our parts. And then I remembered a small incident which occurred several years ago when I was attending a performance of *The Magic Flute* at the Paris Opera. It was the beginning of the first act, and the three attendants of the Queen of the Night were singing somewhat perfunctorily. Suddenly an old gentleman near me rose and called out loudly: "Respectez la musique, s'il vous plaît!" At Stratford and Attingham we did respect the music and the poetry.